

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>09628</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/JP2004/003589</b>	International filing date (day/month/year) <b>17/03/2004</b>	(Earliest) Priority Date (day/month/year) <b>17/03/2003</b>
Applicant <b>JAPAN TOBACCO INC.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

**LEVIG, VOT & MAYER**  
~~REDACTED~~

3. ☐ **Unity of invention is lacking** (see Box III).

**AUG 25 2004**

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**METHOD FOR INCREASING THE ORAL BIOAVAILABILITY OF  
S- '2- ( ' ' 1- (2-ETHYLBUTYL) CYCLOHEXYL! CARBONYL! AMINO) PHENYL! -2-METHYLPROPANETHIOATE**

**noted**  
~~REDACTED~~

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**LAH**

6. With regards to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☒ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2004/003589

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61K31/265 A61P9/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, EMBASE, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

16 July 2004

Date of mailing of the international search report

29/07/2004

Name and mailing address of the ISA

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Authorized officer

Langer, O

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/003589

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 426 365 B1 (MAEDA KIMIYA ET AL) 30 July 2002 (2002-07-30) cited in the application	1-3, 7-9, 11, 12, 16-18, 25-27, 31-37, 41-53
Y	abstract column 4, line 21 - line 45 column 16, line 7 - line 8 column 16, line 30 - line 59 column 30, line 29 - line 47 column 30, line 49 - line 56 column 30, line 57 - line 62 column 133, lines 11-12 of claim 5 claims 1, 6, 7 compounds no. 2, 10, 26, 28, 59-63 in tables 1, 5, 11, 16, 17	4-6, 10, 13-15, 19-24, 28-30, 38-40
X	WO 03/000295 A (GUMKOWSKI MICHAEL JON ; MURDANDE SHARAD BALASAHEB (US); PERLMAN MICHAEL) 3 January 2003 (2003-01-03)	1, 10, 22, 25, 31, 34, 35, 41, 44, 45
Y	page 3, line 21 - line 30 last three compounds of claim 9 abstract page 1, line 15 - line 26 page 2, line 16 - page 3, line 4 claims 1, 6, 8	4-6, 10, 13-15, 19-24, 28-30, 38-40

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/003589

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 02/11710 A (CURATOLO WILLIAM JOHN ; FRIESEN DWAYNE THOMAS (US); GUMKOWSKI MICHAEL) 14 February 2002 (2002-02-14)</p> <p>abstract page 1, line 5 - line 34 page 5, line 33 - line 37 page 6, line 28 - page 7, line 3 page 90, line 1 - line 29 page 93, line 36 - page 94, line 8 page 108, line 33 - page 109, line 5 page 114, line 34 - page 115, line 8 page 115, line 21 - line 26 page 116, line 1 - line 6 page 116, line 12 - line 17 claims 1,4,9</p>	<p>1,10,16, 22,25, 31,34, 35,41, 44,45</p>
A	<p>-----</p> <p>KOBAYASHI, JUNJI ET AL: "Effect of HDL, from Japanese white rabbit administered a new cholesteryl ester transfer protein inhibitor JTT-705, on cholesteryl ester accumulation induced by acetylated low density lipoprotein in J774 macrophage" ATHEROSCLEROSIS (SHANNON, IRELAND) , 162(1), 131-135 CODEN: ATHSBL; ISSN: 0021-9150, 2002, XP002288179 cited in the application abstract</p>	<p>1-53</p>
A	<p>-----</p> <p>SHINKAI, HISASHI ET AL: "Bis'-2-(Acylamino)phenyl! Disulfides, 2-(Acylamino)benzenethiols, and S'-2-(Acylamino)phenyl! Alkanethioates as Novel Inhibitors of Cholesteryl Ester Transfer Protein" JOURNAL OF MEDICINAL CHEMISTRY , 43(19), 3566-3572 CODEN: JMCMAR; ISSN: 0022-2623, 2000, XP002288180 cited in the application the whole document</p>	<p>1-53</p>
A	<p>-----</p> <p>WATTS, GERALD F.: "The Yin and Yang of cholesteryl ester transfer protein and atherosclerosis" CLINICAL SCIENCE , 103(6), 595-597 CODEN: CSCIAE; ISSN: 0143-5221, 2002, XP002288181 the whole document</p> <p>-----</p> <p style="text-align: center;">-/--</p>	<p>1-53</p>

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/003589

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	OKAMOTO, HIROSHI ET AL: "A cholesteryl ester transfer protein inhibitor attenuates atherosclerosis in rabbits" NATURE (LONDON) CODEN: NATUAS; ISSN: 0028-0836, vol. 406, 17 June 2000 (2000-06-17), pages 203-207, XP002288182 cited in the application the whole document	1-53
A	DE GROOTH, GREETJE J. ET AL: "Efficacy and safety of a novel cholesteryl ester transfer protein inhibitor, JTT-705, in humans: A randomized phase II dose-response study" CIRCULATION , 105(18), 2159-2165 CODEN: CIRCAZ; ISSN: 0009-7322, 2002, XP002288183 cited in the application abstract	1-53
A	HUANG, ZHIPING ET AL: "Cholesteryl ester transfer protein inhibitor (JTT-705) and the development of atherosclerosis in rabbits with severe hypercholesterolaemia" CLINICAL SCIENCE , 103(6), 587-594 CODEN: CSCIAE; ISSN: 0143-5221, 2002, XP002288184 abstract	1
P,A	OKAMOTO, HIROSHI ET AL: "Effect of JTT-705 on cholesteryl ester transfer protein and plasma lipid levels in normolipidemic animals" EUROPEAN JOURNAL OF PHARMACOLOGY , 466(1-2), 147-154 CODEN: EJPHAZ; ISSN: 0014-2999, 2003, XP002288185 abstract	1
P,A	SHIMOJI EISO ET AL: "Inhibition of cholesteryl ester transfer protein increases serum apolipoprotein (apo) A-I levels by increasing the synthesis of apo A-I in rabbits." ATHEROSCLEROSIS. FEB 2004, vol. 172, no. 2, February 2004 (2004-02), pages 247-257, XP002288186 ISSN: 0021-9150 abstract	1

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP2004/003589

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 1-43 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/003589

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6426365	B1	30-07-2002	JP	2894445 B2		24-05-1999
			JP	11049743 A		23-02-1999
			AU	728979 B2		25-01-2001
			AU	5781898 A		08-09-1998
			BR	9807222 A		23-05-2000
			CA	2280708 A1		20-08-1998
			CN	1252053 T		03-05-2000
			EP	1020439 A1		19-07-2000
			HU	0002483 A2		28-05-2001
			ID	22667 A		02-12-1999
			WO	9835937 A1		20-08-1998
			JP	3290962 B2		10-06-2002
			JP	11222428 A		17-08-1999
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			US	2003092708 A1		15-05-2003
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WO 03000295	A	03-01-2003	BR	0210505 A		18-05-2004
			CA	2455288 A1		03-01-2003
			EE	200400024 A		15-06-2004
			WO	03000295 A2		03-01-2003
			US	2003022944 A1		30-01-2003
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			BG	107456 A		30-09-2003
			BR	0112828 A		01-07-2003
			CA	2417755 A1		14-02-2002
			CN	1458840 T		26-11-2003
			CZ	20030224 A3		18-02-2004
			EP	1305007 A2		02-05-2003
			HU	0300676 A2		28-08-2003
			WO	0211710 A2		14-02-2002
			JP	2004505911 T		26-02-2004
			NO	20030506 A		31-01-2003
			SK	1032003 A3		04-05-2004
			US	2003186952 A1		02-10-2003
			US	2002103225 A1		01-08-2002
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